

**Table B-2. Chronic toxicity screening doses for wildlife.**

Chemical	Mammalian				Chronic Threshold <sup>1,2</sup>		Effect (Mammal, Bird)	Test Organism	References
	Test Species	Test Species body wt (kg)	NOAEL (mg/kg/day)	Mink normalized NOAEL (mg/kg/day)	Mammalian (mg/kg/day)	Avian (mg/kg/day)			
<b>Metals</b>									
Aluminum	rat	0.35	1.93	1.48	1.48	100	growth, reproduction	rat, ringed turtle dove	USEPA 1999
Antimony	-	-	-	-	0.052	-	lifespan	mouse	ORNL 1996
Arsenic	rat	0.35	0.32	0.25	0.25	5.5	growth, growth	rat, mallard	Navy BTAG 1997
Barium	rat	0.35	5.10	3.92	3.92	208	growth, mortality	rat, chicken	Johnson et al 1960, Perry et al 1983
Beryllium	mouse	0.03	0.66	0.27	0.27	-	systemic effects	mouse	Schroeder and Mitchener 1971
Cadmium	-	-	-	-	0.742	1.45	reproduction, reproduction	rat, mallard	ORNL 1996
Chromium	rat	0.35	3.30	2.54	2.54	1	growth, reproduction	rat, black duck	Mackenzie et al 1958, Sample et al 1996
Cobalt	rat	0.35	1.20	0.92	0.92	1.3	growth, growth	rat, chicken	Navy BTAG 1997, Eco SSLs (USEPA) 2000
Copper	mouse	0.03	2.67	1.11	1.11	2.3	growth, growth	mouse, chicken	Navy BTAG 1997
Iron	mouse	0.03	120.00	49.94	49.94	-	teratogeneity	mouse	USEPA 1984
Lead	mouse	0.03	0.38	0.15	0.15	3.85	mortality, reproduction	mouse, american kestrel	Schroeder and Mitchener 1971, ORNL 1996
Manganese	-	-	-	-	68	997	reproduction, growth	rat, japanese quail	ORNL 1996
Mercury	-	-	-	-	0.027	0.039	mortality, reproduction	mink, mallard	Navy BTAG 1997
Methyl Mercury	rat	0.35	0.10	0.08	0.08	2.6	reproduction	rat / kestrel	ATSDR 1999, Peakall and Lincer 1972
Nickel	rat	0.35	40.00	30.77	30.77	65	reproduction, mortality	rat, Coturnix quail	Ambrose et al 1976, USEPA 1999
Selenium	-	-	-	-	0.154	0.57	reproduction, reproduction	rat, mallard	ORNL 1996, Navy BTAG 1997
Silver	rat	0.35	22.20	17.08	17.08	-	systemic effects	rat	Matuk et al 1981
Thallium	-	-	-	-	0.006	-	reproduction	rat	ORNL 1996
Vanadium	rat	0.35	0.84	0.65	0.65	11.4	reproduction, body wt.	rat, mallard	ATSDR 1992, ORNL 1995
Zinc	mouse	0.03	160.00	66.59	66.59	17.2	survival, reproduction	mouse, mallard	Schlicker and Cox 1968, Navy BTAG 1997
<b>Conventional</b>									
Ammonia	-	-	-	-	-	-	-	-	-
Cyanide	rat	0.35	68.70	52.84	52.84	0.04	litter size, birth weight of pups, mortality	rat, american kestrel	Tewe and Maner 1981, USEPA 1999
<b>PAHs</b>									
Anthracene	mouse	0.03	125.00	52.02	58.02 <sup>a</sup>	280 <sup>a</sup>	systemic effects, mortality	mouse	HEAST 1995
Benzo(a)anthracene	mouse	0.03	1.00	0.42	0.42 <sup>b</sup>	-	reproduction	mouse	Mackenzie and Angevine 1981
Benzo(a)pyrene					0.42 <sup>b</sup>	-	reproduction	mouse	ORNL 1996
Benzo(b)fluoranthene	mouse	0.03	1.00	0.42	0.42 <sup>b</sup>	-	reproduction	mouse	Mackenzie and Angevine 1981
Benzo(g,h,i)perylene	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	-	-	-	-	-	-	-	-	-

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Chrysene	mouse	0.03	1.00	0.42	0.42 <sup>b</sup>	-	reproduction	mouse	Mackenzie and Angevine 1981
Dibenzo(a,h)anthracene	mouse	0.03	1.00	0.42	0.42 <sup>b</sup>	-	reproduction	mouse	Mackenzie and Angevine 1981
Fluoranthene	mouse	0.03	125.00	52.02	52.02 <sup>a</sup>	280 <sup>a</sup>	systemic effects, mortality	mouse	HEAST 1995
Indeno(1,2,3-cd)pyrene	mouse	0.03	1.00	0.42	0.42 <sup>b</sup>	-	reproduction	mouse	Mackenzie and Angevine 1981
Phenanthrene	mouse	0.03	125.00	52.02	52.02 <sup>a</sup>	280 <sup>a</sup>	mortality	mouse, mallard	Patton and Dieter 1980
Pyrene	mouse	0.03	75.00	31.21	31.21	-	systemic effects	mouse	HEAST 1995
<b>PCBs</b>									
Aroclor 1242	-	-	-	-	0.6	0.46 <sup>c</sup>	hatchability	chicken	Lillie et al 1975
Aroclor 1254	rat	0.35	0.75	0.58	0.58	0.18	litter size, hatchability	rat, chicken	Linder et al 1974, Cecil et al 1974
Aroclor 1260	rat	0.35	0.06	0.05	0.05	-	survival of pups	rat	Keplinger et al 1971
PCB (total)	-	-	-	-	-	0.09	egg production	chicken	Navy BTAG 1997
<b>Pesticides</b>									
4,4-DDD	rat	0.35	28.00	21.54	21.54	-	development	rat	ATSDR 1992a
4,4-DDE	mouse	0.03	34.00	14.15	14.15	0.845	reproduction, mortality	mouse, Coturnix quail	ATSDR 1992s, USEPA 1999
4,4-DDT	rat	0.35	0.04	0.03	0.03	0.003	fertility, reproduction	rat, pelican	ATSDR 1992s, USEPA 1995
Aldrin	-	-	-	-	0.154	-	reproduction	rat	ORNL 1996
delta-BHC	-	-	-	-	0.014	0.56	kit mortality, growth; egg hatchability	mink, quail	Sample et al 1996
gamma-BHC (Lindane)	-	-	-	-	6.15	2	reproduction	rat, mallard	ORNL 1996
Chlordane	-	-	-	-	1.9	2.1	reproduction, mortality	mouse, red-winged blackbird	ORNL 1996
alpha-Chlordane	-	-	-	-	-	-	-	-	-
gamma-Chlordane	-	-	-	-	-	-	-	-	-
cis-Nonachlor	-	-	-	-	-	-	-	-	-
trans-Nonachlor	-	-	-	-	-	-	-	-	-
Dieldrin	-	-	-	-	0.015	0.077	reproduction	rat, barn owl	ORNL 1996
Endosulfan	-	-	-	-	0.12	10	reproduction	rat, partridge	ORNL 1996
Endrin Ketone	-	-	-	-	-	-	-	-	-
Heptachlor	-	-	-	-	0.1	0.065	reproduction, mortality	mink, Coturnix quail	ORNL 1996
Heptachlor epoxide	dog	12.70	0.13	0.24	0.24	-	pup survival	dog	USEPA 1995
Oxychlordane	-	-	-	-	-	-	-	-	-
<b>Semivolatile Organics</b>									
1,1-Biphenyl	-	-	-	-	-	-	-	-	-
2,4,5 Trichlorophenol	-	-	-	-	-	-	-	-	-

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2,4,6 Trichlorophenol	rat	0.35	120.00	92.30	92.3	-	reduced body wt.	rat	ATSDR 1997
2,4-Dichlorophenol	mouse	0.03	1300.00	541.03	541.03	-	reproduction	mouse	ATSDR 1992
2,4-Dimethylphenol	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	rat	0.35	60	46.15	46.15	-	reproduction	rat	ATSDR 1993
2-Chlorophenol	rat	0.35	3.00	2.31	2.31	-	reproduction	rat	RTECS 1995
2-Methylphenol	-	-	-	-	219	-	reproduction	mink	ORNL 1995
2-Nitrophenol	-	-	-	-	-	-	-	-	-
3,3-Dichlorobenzidine	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	-	-	-	-	-	-	-	-	-
4-Methylphenol	rat	0.35	450.00	346.12	346.12	-	reproduction	rat	ATSDR 1996
4-Nitrophenol	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	-	-	-	-	7.6	1.1	reproduction	mouse, ringed dove	ORNL 1996, Peakall 1974
Butylbenzylphthalate	rat	0.35	159.00	122.30	122.3	-	increased liver to body wt. ratio	rat	IRIS, USEPA, Jan. 1994
Dimethylphthalate	rat	0.35	1000.00	769.16	769.16	-	kidney effects	rat	HEAST 1994
Di-n-octylphthalate	mouse	0.03	7500	3121.34	3121.34	-	reproduction	mouse	US EPA 1999
Pentachlorophenol	-	-	-	-	0.185	4.03	reproduction, mortality	rat, Coturnix quail	ORNL 1996, USEPA 1999
Phenol	mouse	0.03	140.00	58.27	58.27	-	fetal body wt.	mouse	ASTDR 1989

<sup>1</sup> The toxic effects level represents the NOAEL. If the NOAEL was not available, it was estimated by dividing the LOAEL by a factor of 10.

<sup>2</sup> Chronic screening values which do not show a mink NOAEL derivation were either already derived by the reference or were taken from a test with mink as the test species.

<sup>a</sup> No effect level estimated using "surrogate" LPAH.

<sup>b</sup> No effect level estimated using "surrogate" HPAH.

<sup>c</sup> Actual constituent reported as A1232, A1242, A1248.

- = Not available.